Veolia Draft Enhanced Feedstream Analysis Procedures

October 26, 2015

Condition 2.1(D)(4)(d)(ii) – Analysis procedures for arsenic, beryllium and chromium (LVM), lead and cadmium (SVM) and mercury.

The Permittee shall implement the following procedures for arsenic, beryllium, chromium, lead, cadmium and mercury, and must maintain records of all analyses, reports and written determinations in accordance with condition 2.1(E)(21). Consistent with condition 2.1(D)(4)(b)(iv), above, the Permittee must specify in the feedstream analysis plan the quality assurance/quality control procedures and test methods it will use to conduct the sampling and analyses required in this condition 2.1(D)(4)(d)(ii). **Within 60 days** of this permit becoming effective, the Permittee shall submit to the Administrator for approval a revised feedstream analysis plan that incorporates into the plan, at a minimum, the feedstream analysis procedures contained in this condition 2.1(D)(4)(d)(ii).

Condition 2.1(D)(4)(d)(ii)(A) – Pre-acceptance screening procedure.

The Permittee may obtain, prior to the shipment of waste to the facility, a representative sample of the waste for analysis of arsenic, beryllium, chromium, lead, cadmium and mercury by using appropriate quality assurance/quality control procedures and test methods that are consistent with EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), available at http://www.epa.gov/waste/hazard/testmethods/sw846/. The Permittee is not required for purposes of this permit to follow this pre-acceptance screening sampling and analysis procedure for each wastestream since the Permittee will be conducting waste acceptance sampling and analysis as required below.

Condition 2.1(D)(4)(d)(ii)(B) – Waste acceptance procedure.

Subject to the exemptions in condition 2.1(D)(4)(d)(ii)(F), below, and except as provided below, the Permittee shall conduct representative sampling using the methods specified in 40 C.F.R. Part 261, Appendix I, of each shipment of waste prior to feeding the waste into any incinerator and shall analyze such samples for arsenic, beryllium, chromium, lead, cadmium and mercury using appropriate quality assurance/quality control procedures and appropriate test methods that are consistent with SW-846. In this permit, "shipment" means the collection of all wastestreams identified in the waste manifest form that accompanies the waste. The Permittee shall use the following analytical protocol and frequency for all wastestreams accepted for incineration:

I. Initial Analysis.

(aa) The Permittee shall sample and analyze at least 10% of containers in each of the first five (5) or more shipments of each wastestream received at the facility per year (12 month period). The Permittee shall use the analytical result for each shipment sampled and analyzed for performing metals feedrate calculations for that shipment. If any metals analysis result is below the reporting limit (i.e., non-detect), the reporting limit as defined in condition 2.1(D)(4)(d)(ii)(E)(III), below, will be used.

(ab) For the next nine (9) shipments of the same wastestream received, the Permittee shall use the 95% upper confidence level (UCL) of the data from condition 2.1(D)(4)(d)(ii)(B)(I)(aa), above (i.e., profile concentration) for metals feedrate calculations for those shipments.

II. Subsequent Analysis.

(aa) For every tenth (10^{th}) shipment received after the initial five (5) shipments, the Permittee shall sample and analyze at least 10% of containers in the shipment, and shall use the metals analysis results for metals feedrate calculations for that shipment (shipment concentration).

(ab) The Permittee shall re-calculate the profile concentration in condition 2.1(D)(4)(d)(ii)(B)(I)(aa), above, by including analytical data from each subsequent analysis required by conditions 2.1(D)(4)(d)(ii)(B)(I)(bb) and (II)(aa), and shall use the re-calculated profile concentration for metals feedrate calculations for the non-sampled shipments.

III. Discrepant Analytical Results.

(aa) A shipment is discrepant for metals if the shipment concentration, as defined in condition 2.1(D)(4)(d)(ii)(B)(II)(aa), above, exceeds the UCL.

(ab) Following a discrepant metals analysis, the Permittee shall sample and analyze at least 10% of containers in each of the next five (5) or more shipments of that wastestream, and shall re-calculate the initial and subsequent profile concentrations as described in conditions 2.1(D)(4)(d)(ii)(B)(I) and (II), above.

IV. Feedstreams in which the physical nature of the waste makes it technically impracticable to obtain a representative laboratory sample.

(aa) In lieu of conducting sampling and analysis as described in conditions 2.1(D)(4)(d)(ii)(B)(I) through (III), above, the Permittee may elect to use a combination of laboratory analysis and acceptable knowledge (as described in condition 2.1(D)(4)(d)(ii)(B)(IV)(bb), below) for the following wastes whose physical nature may make it technically impracticable to obtain a representative laboratory sample: batteries, cathode ray tubes, piping, wire, tubing, syringes, metal sheeting and parts, explosive components, electronic devices, and personal protection equipment that are impractical to sample and difficult to obtain accurate and representative analysis (gloves, boots and disposable garments).

(ab) The use of acceptable knowledge shall be consistent with EPA guidance as contained in Section 1.2 of *Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes - Final, A Guidance Manual*, EPA 530-R-12-001 (April 2015), available at http://www2.epa.gov/sites/production/files/2015-04/documents/tsdf-wap-guide-final.pdf. Acceptable knowledge includes, but is not limited to, process knowledge whereby detailed information on the wastes is obtained from existing published or documented waste analysis data or studies conducted on hazardous wastes generated by processes similar to that which generated the waste, incidents of human injury or environmental damage attributed to the waste, data on waste composition or properties from analysis or relevant testing performed by the generator, information on the properties of waste constituents or, in cases of newly listed wastes, data from recent waste analyses performed prior to the effective date of the listings.

(ac) The acceptable knowledge shall be applied to identifying the composition of the base construction materials of the waste (e.g., steel in the case of steel piping). The Permittee shall then collect surface "wipe" samples or, if coated or containing residue, remove a chip of paint or other coating or residue and conduct laboratory analysis to determine the representative concentrations of any contaminants present.

(ad) The Permittee shall maintain documentation that clearly demonstrates that the information relied upon is current and sufficient to identify the waste accurately and completely.

V. Additional Sampling and Analysis.

The Permittee shall perform sampling and analysis, and must re-calculate the initial and

subsequent profile concentrations, as described in conditions 2.1(D)(4)(d)(ii)(B)(I) through (III), above, under any of the following circumstances:

(aa) A generator notifies the Permittee, or the Permittee has reason to believe, that the process or operation generating the waste has changed;

(ab) When the results of the pre-acceptance inspection conducted according to condition 2.1(D)(4)(d)(ii)(A), above, indicate that the waste received at the facility does not match the waste designated on the accompanying manifest or shipping paperwork;

(ac) The Permittee determines through a review of other information available to the Permittee that the concentration of arsenic, beryllium, chromium, lead, cadmium or mercury in the waste stream may have changed.

Condition 2.1(D)(4)(d)(ii)(C) – Batch sampling procedure.

I. Except as provided in condition 2.1(D)(4)(d)(ii)(C)(II), below, if waste accepted for incineration is batched, treated, blended, mixed, or otherwise altered from its shipped state, the Permittee shall sample and analyze such batched, treated, blended, mixed, or otherwise altered waste for mercury, LVM and SVM in its final form as feed for incineration, prior to incineration using appropriate quality assurance/quality control procedures and appropriate test methods that are consistent with SW-846.

II. In lieu of sampling and analysis as specified in condition 2.1(D)(4)(d)(ii)(C)(I), above, the Permittee may perform a mass balance calculation to determine concentrations in the final batched, treated, blended, mixed, or otherwise altered waste. The calculation must be based on all batched, treated, blended, mixed, or otherwise altered ingredients and the contribution of each ingredient determined pursuant to condition 2.1(D)(4)(d)(ii)(E), below.

III. Feedstreams which are exempt from sampling in accordance with conditions 2.1(D)(4)(d)(ii)(F)(I) through (III) can be batched, treated, blended, mixed, or otherwise altered provided the Permittee complies with conditions 2.1(D)(4)(d)(ii)(F)(II) and (III), below.

Condition 2.1(D)(4)(d)(ii)(D) – Fuel procedure.

The Permittee shall document the concentration of arsenic, beryllium, chromium, lead, cadmium and mercury in any fuel other than natural gas, including used oil, diesel, and alternative fuels,

but not including hazardous waste, burned by the incinerators by either (1) obtaining analytical results from each fuel supplier or (2) conducting representative sampling using the methods in 40 C.F.R. Part 261, Appendix I, of each fuel supply and analyzing such samples using appropriate quality assurance/quality control procedures and appropriate test methods. The Permittee shall follow this procedure at least once per year for each fuel supply.

Condition 2.1(D)(4)(d)(ii)(E) – Treatment of detection limits for metal feedrate calculations.

The Permittee shall determine the concentrations of arsenic, beryllium, cadmium, chromium, lead and mercury as set forth below in order to calculate the mass of mercury, LVM and SVM for each waste or fuel fed to each incinerator:

I. If the applicable metal is detected at or above the reporting limit for that metal, as defined in condition 2.1(D)(4)(d)(ii)(E)(III), below, in any sampling analysis required by conditions 2.1(D)(4)(d)(ii)(A) through (D), above, the metal concentration shall be equal to the concentration of that metal detected from the associated sampling analysis at or above the reporting limit for that metal.

II. If the applicable metal is detected below the reporting limit for that metal, as defined in condition 2.1(D)(4)(d)(ii)(E)(III), below, in any sampling analysis required by conditions 2.1(D)(4)(d)(ii)(A) through (D), above, the metal concentration shall be equal to the reporting limit for that metal.

III. The reporting limit shall be determined as the lower limit of quantitation as described in Method 6010c of SW-846, multiplied by the appropriate extraction and dilution factors. All positive sample results must fall within the established linear dynamic range, and non-detects reported at the lower limit of quantitation with appropriate dilution factors applied as specified by Method 6010c of SW-846.

IV. The mass of LVM in each feedstream is the algebraic sum of the mass of arsenic, beryllium and chromium in that feedstream. The mass of SVM in the feedstream is the algebraic sum of the mass of lead and cadmium in that feedstream.

Condition 2.1(D)(4)(d)(ii)(F) – Exemptions to the analysis procedures in condition 2.1(D)(4)(d)(ii).

I. The following wastes shall be exempt from the analysis procedures set forth in conditions 2.1(D)(4)(d)(ii)(A) through (E), above:

(aa) Packaged chemicals from laboratories, hospitals, household clean sweeps, or manufacturing facilities, including scintillation vials packed in accordance with Small Quantity Chemical Guidelines (SQCGs) except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification). For packaged chemicals, the Permittee shall obtain a packing list for each container from the generator specifying type and quantity of chemicals contained within;

(ab) Empty containers as defined in 35 IAC 721.107(b);

(ac) Pharmaceutical, commercial products or chemicals and consumer products that are off-specification or outdated and are packaged in consumer quantities, are unused or banned, and are in their original packaging except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification);

(ad) Aerosol cans, lecture bottles or gas cylinders, except those that are unknowns (such as having no labels or other identification);

(ae) Controlled substances, as defined in 21 C.F.R. Part 1308, regulated by the federal government and handled unopened until destroyed in the incinerator; and

(af) Explosive, air and water reactive, poison inhalation hazard, or odiferous material, such as mercaptan, and that present sampling and analytical safety hazards and that are handled unopened until destroyed in the incinerator.

II. For each waste listed in conditions 2.1(D)(4)(d)(ii)(F)(I)(aa) through (ff), above, the Permittee shall review any container labels, material safety data sheets, drum inventories, packing lists, and any other relevant data or information provided by the generator to determine the metals concentrations of these exempted waste. This relevant documentation will be kept in the Technical Manager's File or electronic system.

III. Any waste listed in conditions 2.1(D)(4)(d)(ii)(F)(I)(aa) through (ff) for which there is insufficient information to allow the Permittee to make a reasonable determination of the amount of mercury, LVM and SVM present in the waste shall not be exempt from the analysis procedures in conditions 2.1(D)(4)(d)(ii)(A) through (E), above.

IV. The Permittee may request approval from the Administrator to exempt any waste that is not listed in conditions 2.1(D)(4)(d)(ii)(F)(I)(aa) through (ff) from the analysis procedures set forth in conditions 2.1(D)(4)(d)(ii)(A) through (E), above. The Permittee

shall describe in its request the information reviewed and the basis for the proposed exemption. The Permittee shall submit all such written requests to the address in condition 4.2(B). The Administrator shall have 60 days from the date of receipt of the written request to approve or disapprove the request as submitted by the Permittee, or to request additional information needed to enable the Administrator to make a decision on the Permittee's request. If the Administrator requires additional information to make a decision on the Permittee's request, the Administrator shall have 60 days following receipt of the additional information to act on the Permittee's request. If the Administrator does not respond to the request within 60 days of receiving the request and any additional information requested, the Permittee may consider its request to exempt the specified waste(s) approved.

Condition 2.1(D)(4)(d)(ii)(G) – Effect of condition 2.1(D)(4)(d)(ii)

Condition 2.1(D)(4)(d)(ii) shall supersede any conflicting or less stringent provision in the Permittee's feedstream analysis plan required by condition 2.1(D)(4)(b), above.